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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,195	10/16/2003	Lizhang Yang	58829US002	7160
32692	7590	03/24/2006	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			WOOD, KEVIN S	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/687,195

Applicant(s)

YANG ET AL.

Examiner

Kevin S. Wood

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 15-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>246/06, 12/28/05</u> | 6) <input type="checkbox"/> Other: _____ |

FINAL REJECTION

Response to Amendment

1. This action is responsive to the Amendment filed on 27 December 2005. Claim 1 has been amended. Claims 15-22 have been withdrawn as non-elected. Claims 1-14 are pending in the application.

Drawings

2. The drawings were received on 27 December 2005. These drawings are accepted. Based on the replacement drawings and the amendment to the specification, the objections to the drawings have been withdrawn.

Response to Arguments

3. Applicant's arguments filed 27 December 2005 have been fully considered but they are not persuasive. The examiner has thoroughly reviewed the applicant's arguments but firmly believes the cited reference(s) to reasonably and properly meet the claimed limitations.

The applicant's primary argument is that U.S. Patent No. 5,367,595 to Jennings et al. does not disclose all the limitations of the independent claim 1. Specifically the applicant argues that the Jennings et al. reference does not disclose each channel comprising an input zone for holding a plurality of fiber optic cables. The examiner respectfully disagrees with this argument. In Fig. 5 of the Jennings et al. reference, the

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outer member (112) forms the claimed channel. The channel (112) clearly has a plurality of input fibers inserted into the cavity (120) at the input area of the channel.

The applicant also argues that the Jennings et al. reference does not disclose a transition zone configured to contain all the optical fibers of the plurality of fiber optic cables in a common space. The examiner respectfully disagrees with this argument. The Jennings et al. reference clearly discloses the channel member (112) having a transition zone (140) that houses all the optical fibers within a common space. See Fig. 5 of the Jennings et al. reference.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 6-8 and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,367,595 to Jennings et al.

Referring to claim 1, the Jennings et al. reference discloses all the limitations of the claimed invention. The Jennings et al. reference discloses an apparatus for arranging optical fibers, the apparatus comprising at least one channel, each channel comprising: an input zone (120,142) for holding a plurality of fiber optical cables (14), each cable having at least one optical fiber (35); a transition zone (140) adjacent to the input zone; an output zone (136) adjacent to the transition zone, the output zone

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comprising at least one slot (126), each slot having a maximum width that is equal to a multiple of the optical fiber diameter plus one half optical fiber diameter. See Fig. 1-23 along with their respective portions of the specification. The slot (126) is shown holding securely holding the optical fibers, the maximum width of the slot is clearly less than a multiple of the optical fiber diameter plus one half the optical fiber diameter. Since that multiple could be any whole number, any slot width would meet the claimed limitation.

Referring to claim 2, the Jennings et al. reference discloses all the limitations of the claimed invention. The Jennings et al. reference discloses that grooves (122) have a geometry that will not violate the minimum bend radius of the optical fiber. See Fig. 1-23 along with their respective portions of the specification.

Referring to claim 6, the Jennings et al. reference discloses all the limitations of the claimed invention. The Jennings et al. reference discloses that the first depth of the input zone has a first depth that is larger than a second depth of the output zone. The channels clearly get narrower (or shorter) as the channels transition from the input to the output zones. See Fig. 1-23 along with their respective portions of the specification.

Referring to claim 7, the Jennings et al. reference discloses all the limitations of the claimed invention. The Jennings et al. reference discloses the transition zone has an incline starting from the first depth of the input zone and ending at the second depth of the output zone. The channel clearly gets narrower (and has inclines surfaces as it narrows) as the channels transition from the input to the output zones. See Fig. 1-23 along with their respective portions of the specification.

Referring to claim 8, the Jennings et al. reference discloses all the limitations of the claimed invention. The Jennings et al. reference discloses regions disposed along the transition zone (128,130,132). See Fig. 1-23 along with their respective portions of the specification.

Referring to claim 12, the Jennings et al. reference discloses all the limitations of the claimed invention. The Jennings et al. reference discloses an indicating means bracketing the transition zone. The reference clearly shows a ridge running along the top and the bottom of the apparatus. See Fig. 5 of the reference. This ridge clearly brackets the transition zone (138,140) and indicates the top and bottom of the apparatus. The limitation of being an indicating means is very broad, almost any component can be said to be indicating something.

Referring to claim 13, the Jennings et al. reference discloses all the limitations of the claimed invention. The Jennings et al. reference discloses a plurality of fiber optic cables (14), each having at least one optical fiber, wherein the fiber optic cables are disposed in the input zone (134,142) and the optical fibers are disposed in the transition zone (128,130) and the output zone (126). See Fig. 1-23 along with their respective portions of the specification.

Referring to claim 14, the Jennings et al. reference discloses all the limitations of the claimed invention. The Jennings et al. reference discloses the optical fibers (35) lie parallel to one another in the output zone (126). See Fig. 1-23 along with their respective portions of the specification.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 3-5 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,367,595 to Jennings et al.

Referring to claims 3-5, the Jennings et al. reference discloses all the limitations of the claimed invention, except the reference does not specifically disclose that the grooves (126) within the output zone hold non-active optical fibers adjacent to the other optical fibers, nor does the reference disclose that the non-active fibers would be disposed between the active optical fibers or the active optical fibers are disposed in slots between the non-active optical fibers. Since the applicant has not claimed a structural difference between the slots and holding grooves, the only difference appears to be

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whether the fiber within each slot/groove is an optical fiber or non-active optical fiber. These limitations appear to be "intended use" limitations. If the prior art is capable of performing the intended use limitation, then it meets the claim. Clearly the Jennings et al. reference is capable of holding a plurality of optical fibers, one within each of the plurality of slots (126). It would be up to the user to choose which optical fiber to make active and which ones have as non-active optical fibers. Any of the optical fibers disclosed within the Jennings et al. reference could be active or non-active at any moment, a non-active optical fiber could be any optical fiber that is not carrying transmitting an optical signal at that moment.

Referring to claims 9-11, the Jennings et al. reference discloses all the limitations of the claimed invention, except the reference does not appear to specifically disclose that the apparatus is fabricated from a low adhesion polymer or a composite comprising a base overcoated with a low adhesion polymer, where low adhesion polymer is tetrafluoroethylene fluorocarbon polymer and the base is fabricated from a metal selected from the group consisting of aluminum, steel, stainless steel, copper and copper alloys. The specification fails to disclose the criticality of fabricating with these claimed materials. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the apparatus using a low adhesion polymer or a composite comprising a base overcoated with a low adhesion polymer, where low adhesion polymer is tetrafluoroethylene fluorocarbon polymer and the base is fabricated from a metal selected from the group consisting of aluminum, steel, stainless steel, copper and copper alloys, since it has been held to be within the

general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. In re Leshin, 125 USPQ 416.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706:07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin S. Wood whose telephone number is (571) 272-2364. The examiner can normally be reached on Monday-Thursday (7am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney B. Bovernick can be reached on (571) 272-2344. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KSW

Kevin S. Wood

Akmal
AKM ENAYET ULLAH
PRIMARY EXAMINER